

REMARKS

Claims 1-21 are pending. By this Amendment, the specification and claims 1, 3-6, 8, 11, 12, 14-17 and 19 are amended. Reconsideration in view of the above amendments and following remarks is respectfully requested.

Claims 1-4, 6-15 and 17-21 were rejected under 35 U.S.C. § 103(a) over Kubo (U.S. Patent Application Publication No. 2003/014179 A1) in view of Ohashi (U.S. Patent No. 6,606,019). The rejection is respectfully traversed.

Each of independent claims 1, 11 and 12 recites a coil arrangement in thermal contact with a cooling element, the cooling element provided with one or more slits configured to increase electrical resistance of eddy current paths.

MPEP § 2143 states: “To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.”

It is respectfully submitted that the combination of Kubo and Ohashi fails to establish a *prima facie* case of obviousness against each of independent claims 1, 11 and 12 because: 1) there is no motivation or suggestion to combine the references; 2) there is no reasonable expectation of success of combining the references; and 3) the combination fails to disclose or suggest all the claim limitations.

The Examiner alleges on page 2 of the Office Action that Kubo discloses a cooling element (cooling pipe 1401) in contact with a coil arrangement (coil 1323) and acknowledges that Kubo does not disclose or suggest a slits in the cooling element to reduce eddy currents. The Examiner alleges that Ohashi discloses slits that are parallel to each other in Figures 1, 2 and 3 and parallel or perpendicular to an induced electric field and concludes that it would have been obvious to provide the slits of Ohashi to the invention of Kubo to increase electrical resistance to eddy currents as taught by Ohashi in the abstract.

It is respectfully noted that Ohashi disclose providing slits in the surface of a rare earth-based sintered permanent magnet block, not in a cooling element in thermal contact with a coil arrangement. See, for example, column 4, lines 18-25, and column 5, lines 9-20. Accordingly, even assuming it would have been obvious to combine Ohashi with Kubo, which Applicants do not concede, such a combination would not have resulted in the claimed

invention, including the slits in the cooling element. At best, Ohashi suggests providing slits in the permanent magnets (1311 or 102) of Kubo, not in the cooling pipes (1401 or 153).

It is also respectfully submitted that there is no motivation or suggestion to combine Kubo with Ohashi. Kubo discloses in Figures 14-16 three embodiments of the prior art. Kubo's solution to the deficiencies of these prior art embodiments is shown in Figure 1, and includes lacing the cooling pipe 153 in the middle of the coil units 160 (including the upper 161 and lower 162 partial coils). As clearly shown in Figure 1 of Kubo, the cooling pipe 153 is provided to the stator 150 of the motor.

Ohashi, on the other hand, is directed to reducing eddy currents in the permanent magnets, *i.e.*, in the movable element of the motor, not in the stator. One of ordinary skill in the art concerned with reducing eddy currents in the coil arrangement and cooling pipes of the stator of a motor would not look to Ohashi's disclosure of reducing eddy currents in the permanent magnets of the motor.

It is further respectfully submitted that there is no reasonable expectation of success for combining Kubo and Ohashi. Under the Examiner's reasoning, one of ordinary skill in the art would have been motivated by the disclosure of Ohashi to provide slits in the cooling element of Kubo, which the Examiner alleges corresponds to the cooling pipe 1401. Even assuming Ohashi disclosed or suggested providing slits in a cooling element, which as discussed above Ohashi does not, one of ordinary skill in the art would not have been motivated to provide slits in the cooling pipe 1401 of Kubo as doing so would destroy the path of the coolant 1402 carried in the cooling pipe 1401. Such a modification would render the motor of Kubo unsatisfactory for its intended purpose. See MPEP §§ 2143.01V. and 2145X.D.

Claims 2-4, 6-10, 13-15 and 17-21 recite additional features of the invention and are allowable for the same reasons discussed above with respect to claims 1, 11 and 12 and for the additional features recited therein.

Reconsideration and withdrawal of the rejection over Kubo in view of Ohashi are respectfully requested.

Claims 1, 5, 11, 12 and 16 were rejected under 35 U.S.C. § 103(a) over Kubo in view of Inoue et al. (U.S. Patent application Publication 2003/0048167 A1). The rejection is respectfully traversed.

The Examiner alleges that Inoue et al. disclose slits in Figures 5A, 6A, and 7A. However, Inoue et al. discloses that the slits 6 are formed in the first magnetic member 4 made of thin metallic magnetic elements disposed on the upper and lower surfaces of the coil

1. The slits 6 are not formed in a cooling element. Accordingly, even assuming it would have been obvious to combine Kubo and Inoue et al., such a combination would not have disclosed or suggested all the limitations of independent claims 1, 11 and 12 and would not present a *prima facie* case of obviousness.

Claims 5 and 16 recite additional features of the invention and are allowable for the same reasons discussed above and for the additional features recited therein.

Reconsideration and withdrawal of the rejection over Kubo in view of Inoue et al. are respectfully requested.

In view of the above amendments and remarks, it is respectfully submitted that all of the claims are allowable and the entire application is in condition for allowance.

Should the Examiner believe that anything further is desirable to place the application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

PILLSBURY WINTHROP SHAW PITTMAN LLP



John P. Darling  
Reg. No. 44,482  
Tel. No. 703.770.7745  
Fax No. 703.770.7901

Date: February 17, 2006

P.O. Box 10500  
McLean, VA 22102  
(703) 770-7900